

## **REMARKS/ARGUMENTS**

### **I. Status of the Claims**

Claims 1-3 are pending in the present Application. Claims 4-8 were previously canceled by amendment without prejudice.

### **II. Claim rejections**

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jain et al. (Brain Research 909, 2001, 170-178) in view of Cardenas et al. (Arch Phys Med Rehabil Vol. 83, Dec. 2002).

Claims 2-3 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jain et al. (Brain Research 909, 2001, 170-178) in view of Cardenas et al. (Arch Phys Med Rehabil Vol. 83, Dec. 2002), and further in view of Maw et al. (U.S. Patent No. 6,856,439).

### **III. Remarks as to Obviousness under 35 U.S.C. § 103(a)**

#### **A.) Jain et al in view of Cardenas et al.**

The specification at paragraph [0021] in the instant application states that "an administration of analgesics, such as Loxonin (Loxoprofen), Voltaren (diclofenac) does not have any analgesic effects on alleviating the pain caused by spinal cord injury."

Loxonin and Voltaren are major pain killers, however they do not work at all to treat pain associated with spinal cord injury.

In addition, there is difficulty to categorize pain caused by spinal cord injury as Cardenas et al. (Arch Phys Med Rehabil Vol.83, Dec. 2002) states: "Chronic pain in patients with spinal cord injury (SCI) remains a common clinical problem that is difficult to manage. The several published definitions and categorizations of pain are confusing and make clinical applications difficult." Cardenas also states that "Terminology remains confusing, particularly regarding the neuropathic pain associated with the spinal cord lesion itself that occurs below the level of the lesion, the most common type of chronic pain after SCI." (Right first paragraph in Page 1708, citations omitted).

Therefore, a person skilled in the art recognizes pain associated with spinal cord injury as a different pain from conventional pains which a general pain killer can treat.

Jain et al has been presented for the proposition that sildenafil is a cGMP PDE5 inhibitor that is useful in the treatment of pain. However, Jain et al discloses that sildenafil demonstrated antinociceptive activity in two out of four animal models. Jain is silent as to neuropathic pain, which is, according to Cardenas et al., the most common type of pain following spinal cord injury. Therefore, one of ordinary skill in the art, recognizing that pain killers such as Loxonin (Loxoprofen) and Voltaren (diclofenac), which are effective at reducing nociceptive pain, but are ineffective at reducing pain associated with spinal cord injury, would not be motivated to try sildeafil based upon the teachings of Jain et al., which correlate antinociception to four animal models. There would be no reasonable expectation of success, since other compounds that are known antinociceptives have not proven effective in treating pain associated with spinal cord injury.

**B) Jain et al in view of Cardenas et al. further in view of Maw et al.**

The inclusion of Maw et al., U.S. Patent no. 6,586,439, does not supplement the deficiencies of Jain et al. and Cardenas et al., discussed above. One of ordinary skill in the art would not predict that sildenafil would be effective in alleviating pain or spasticity in a patient suffering from spinal cord injury based upon any of these references, alone or in combination.

**IV. Conclusion**

For all of the above reasons, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) is respectfully requested.

If the Examiner believes a telephonic interview with Applicant's representative would aid in the prosecution of this application, the Examiner is cordially invited to contact Applicant's representative at the below listed number.

Respectfully submitted,



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